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A preliminary test of the role of experiential avoidance in post-event functioning

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Abstract

Experiential avoidance is the unwillingness to experience unwanted thoughts, emotions, or bodily sensations and an individual's attempts to alter, avoid, or escape those experiences. The aim of the current studies was to broaden previous research indicating that experiential avoidance often leads to the development and maintenance of psychological distress. Results indicated that experiential avoidance is significantly correlated with psychological distress and post-traumatic symptomatology over and above other measures of psychological functioning. Limitations and implications for treatment and prevention of psychological distress are discussed.

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1. Introduction

Experiential avoidance (or escape) occurs when an individual is unwilling to approach or remain in contact with internal experiences (such as thoughts, emotions, bodily sensations, or memories) and thus engages in strategies designed to avoid, alter or escape those experiences (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Unfortunately, there is mounting evidence that attempts to avoid internal

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experiences may paradoxically increase their frequency and associated distress (e.g., Purdon, 1999; Wegner, 1994). Further, many behaviors aimed at experiential escape or avoidance, such as substance use, dissociation, self-injurious behavior and behavioral avoidance, are in and of themselves problematic and life interfering (Hayes et al., 1996). Thus, experiential escape or avoidance has been conceptualized as functionally underlying many forms of psychopathology (e.g., Orsillo & Batten, in press; Orsillo, Roemer, Block, LeJeune, & Herbert, in press; Hayes et al., 1996; Polusny & Follette, 1995).

Recently, the role of experiential avoidance in post-traumatic event functioning has become a specific focus of interest. Coping styles likely to be reflective of emotional avoidance, such as wishful thinking and attempted suppression of negative material, have been shown to be associated with post-traumatic symptomatology across samples of female assault victims (Valentiner, Foa, Riggs, & Gershuny, 1996), ambulance workers (Clohessy & Ehlers, 1999), motor vehicle accident victims (Nightingale & Williams, 2000), Gulf-War veterans (Benotsch et al., 2000), and African American youth exposed to inner-city violence (Dempsey, 2002; Dempsey, Overstreet, & Moely, 2000). Further, the paradoxical effects of thought suppression, one form of experiential avoidance, have been shown to be particularly strong among women with rape-related PTSD (Shipherd & Beck, 1999). Also, there is preliminary evidence that among female assault victims, women who experience a peak of symptoms earlier post-trauma report less subsequent depression and PTSD compared to those who experience a delayed peak of post-event symptoms following the assault (Gilboa-Schechtman & Foa, 2001). This finding may reflect the long-term effects of experiential avoidance on the development of later symptomatology.

A series of recent studies have directly assessed the importance of experiential avoidance using the acceptance and action questionnaire (AAQ) among a specific group of trauma survivors; survivors of child sexual assault (CSA). Experiential avoidance has been demonstrated to be more severe among individuals with a history of CSA than in those without this history (Batten, Follette, & Aban, 2001). Additionally, experiential avoidance has been associated with psychological impairment in individuals with a history of sexual victimization (Polusny, Rosenthal, Aban, & Follette, 2004). Finally, Marx and Sloan (2002) found that experiential avoidance mediated the relationship between CSA status and psychological distress.

Taken together, these findings suggest that experiential avoidance may play a significant role in the development and maintenance of psychological difficulties following a traumatic event. However, to date, research directly examining the role of experiential avoidance among trauma victims has been limited to CSA survivors. The present paper attempts to assess the role of experiential avoiding in predicting post-trauma functioning using more diverse samples across three studies.

¹Although there is growing clinical and experimental evidence that experiential avoidance is associated with distress, Bonanno and his colleagues (e.g., Bonanno & Keltner, 1997; Bonanno, Noll, Putnam, O'Neill, & Trickett, 2003; Consedine, Magai, & Bonanno, 2002) have suggested that disclosure of emotional experience may in fact be associated with increased distress.

2. Study 1

The first study is a prospective analogue study aimed at examining the role of experiential avoidance in psychological distress among undergraduate students who experienced a stressful life event. We hypothesized that experiential avoidance would predict psychological distress following the experience of a stressful life event over and above pre-event psychological functioning.

2.1. Method

2.1.1. Participants

Participants were 362 undergraduates from a large Mid-Western university psychology department research pool who volunteered to participate in a two-part study aimed at assessing the impact of stressful life events on psychological functioning in return for course credit. Two hundred and ninety eight students (82%) returned to complete the second phase of the study approximately 8 weeks later. Participants who returned for session two were significantly less likely to be male, (29.8%), χ^2 (1, N=362)=15.57, p<0.001, than were those who only completed session one (55.2% male). However, the groups did not differ on any other demographic or psychological variables.

2.1.2. Measures

2.1.2.1. Acceptance and action questionnaire (AAQ; Hayes, et al., in press). The AAQ is a self-report measure specifically developed to assess experiential avoidance. Items on the AAQ assess emotional avoidance and thought suppression as well as the ability or inability to accept and take action in the face of negatively evaluated private experiences. Items are rated on a 7-point scale (e.g., 1=never true, 4=sometimes true, 7=always true) with some items requiring reverse scoring. Several versions of the AAQ have been used in the literature with similar results. The 16-item version of the scale was used in the current study. Thus, the possible range of scores on the AAQ is 0-112, with higher scores indicating greater experiential avoidance.

The psychometric properties of this measure have been demonstrated in a number of papers. For instance, the studies mentioned above support the validity of the AAQ, as the AAQ has been shown to be related to psychological distress among individuals with a history of childhood sexual assault (Batten et al., 2001; Marx & Sloan, 2002; Polusny et al., 2004). Further, the AAQ has been shown to be related to psychological distress among male veterans in an inpatient substance abuse treatment program (Forsyth, Parker, & Finlay, 2003).

2.1.2.2. Brief symptom inventory (BSI; Derogatis, 1982). The BSI is a 53-item measure that assesses various psychological symptomatologies over the past month. The BSI demonstrates excellent internal consistency (Cronbach's alpha range from 0.71 to 0.85), and good convergent validity (Derogatis & Spencer, 1982). While three global indices of psychological distress are available with the BSI, only the Global

Severity Index (GSI) was used for the purposes of analysis as it is considered the most sensitive single factor of current distress level, combining the frequency and intensity of distress symptoms (Derogatis & Spencer, 1982).

2.1.2.3. Life experiences survey (LES; Sarason, Johnson, & Siegel, 1978). The LES is a 57-item self-report measure that assesses potentially stressful events and the degree to which they have impacted respondents' lives, and includes 10 items designed specifically for students. The LES has demonstrated test-retest reliability on the negative change dimension (r's range from 0.53 to 0.88) and convergent validity with measures of anxiety, depression, and personal maladjustment (Sarason et al., 1978).

2.2. Procedure

Participants completed a package of questionnaires including the AAQ and the BSI at session one. Approximately 8 weeks later, they returned to complete a second package of questionnaires that included the BSI, and the LES. The standard instructions of the LES were modified such that participants were asked only to identify stressful life events that had occurred between the two testing sessions. The mean number of days between sessions was 60.55 days (SD=6.68).

2.3. Results

Participants who indicated at session two that they had experienced one or more events on the LES which they rated as having had an "extremely negative" impact on their lives were selected for the purposes of analysis (n=118; 32.3% of session two participants). The most commonly endorsed events among this sub-sample included academic failure, financial problems and illness/injury of a close family member. The final sample consisted of 89 females and 28 males with a mean age of 20.63 (SD=4.37) and an age range of 18–56. One participant did not disclose age or gender. Participants' reported ethnic background was 85% Caucasian, 6% Native American, 3% Asian American, 3% African American, and 2% Hispanic, 1% indicated "other."

Multiple hierarchical regression analyses indicated that as expected, psychological distress at session one, as measured by the GSI, was a significant predictor of distress at session two (R^2 change = 0.63, p < 0.001). Further, self-reported experiential avoidance at session one predicted distress at session two over and above distress at session one (R^2 change = 0.02, p < 0.05).

3. Study 2

Our second study expanded on the first by examining the relationship between experiential avoidance and psychological functioning in a sample of undergraduates who had experienced a traumatic event. Research has confirmed that psychological

distress following a traumatic event is associated with the severity of the traumatic event (Foy, Sipprelle, Rueger, & Carroll, 1984; Resnick, Kilpatrick, Best, & Kramer, 1992). In this study, we predicted that experiential avoidance would predict psychological distress over and above the severity of the traumatic event.

3.1 Method

3.1.1. Participants

Two hundred thirty-five undergraduates from a large Mid-Western university psychology department research pool voluntarily completed a packet of questionnaires in exchange for course credit as part of a larger study examining emotional response deficits associated with exposure to traumatic events. Participants within that sample who reported a history of exposure to one or more potentially traumatic events were included in this study.

3.1.2. Procedure

In addition to completing the AAQ and the BSI (described in study one), participants completed the post-traumatic diagnostic scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997), a measure of exposure to traumatic events and post-traumatic symptom severity. The PDS has demonstrated satisfactory validity against a structured clinical interview for the purposes of PTSD diagnosis (kappa = 0.65, 82% agreement). In addition, the PDS is correlated with other measures of PTSD, anxiety, and depression (r's range from 0.73 to 0.79; Foa et al., 1997).

Data from three components of the PDS were used in the current study.

3.1.2.1. Traumatic event. First, the PDS was used to determine the presence or absence of a lifetime history of exposure to a traumatic event. Participants were asked to indicate any of a list of traumatic events that they may have experienced over the course of their lives and if more than one event was experienced to chose one event that affected or bothered them the most when completing the remainder of the questionnaire. Participants who did not experience an event on the list were asked to think about a stressful life experience that they felt "really affected you or still bothers you in some way" in completing the remaining questions. All participants were asked to write a brief narrative description of the event.

There are methodological difficulties associated with assessing history of exposure to traumatic life events among undergraduate samples using self-report measures. For instance, participants often choose "other" rather than checking off a defined event (e.g., Goodman, Corcoran, Turner, Yuan, & Green, 1998; Vrana & Lauterbach, 1994) which makes it difficult to determine if an event used to complete a measure of PTSD symptomatology actually qualifies as a traumatic event. Approximately half of the students in the current study who reported that they had experienced a traumatic event (n=78) chose the "other" category. Thus, several steps were taken to better categorize the traumatic events in the current study.

First, the PDS category of *life-threatening illness* (of self or others) was expanded to include the sudden and traumatic death of someone else, a commonly experienced

event that is defined in DSM-IV as a traumatic event (American Psychiatric Association, 1994) that often is subsumed in the "other" category. Next, two independent raters examined participants' written narratives to determine whether or not their narrative matched their response to the checklist. Inter-rater agreement was 90% and differences were resolved by consensus. Raters determined that 33 participants' written narrative did not match the traumatic event they chose from the checklist and thus the self-reported event was recoded to match what was indicated in the narrative. Thirty-three participants who had chosen "other" from the list were dropped from analysis, as the raters determined that the narrative description did not meet DSM-IV criteria as a traumatic event (e.g., making the transition to college, hitting a dog while driving). See Table 1 for the final list of traumatic events that were used as criterion A events for PTSD symptomatology.

3.1.2.2. Trauma severity. Participants completed 6 items on the PDS aimed at providing information about the severity of their trauma exposure. These items ask about whether or not the participant was injured or believed their life was in danger during the event and about the nature of the participant's emotional response at the time of the event (e.g., intense fear, helplessness). Items were summed to make a composite score of severity of traumatic event.

3.1.2.3. PTSD symptom severity. Finally, participants completed 17 items assessing the severity of their PTSD symptoms in relation to the chosen traumatic event.

3.2. Results

The final sample (n=160) included 107 females and 52 males, with an age range of 18-49 and a mean age of 20.97 (SD=5.56). The sample was primarily Caucasian (87%), with 4% self-identifying as Native American, 4% as Asian, 1% as African American, and 0.6% as Hispanic. One participant did not disclose gender or ethnicity.

Intercorrelations between the variables of interest (see Table 2) confirm that experiential avoidance was associated with both PTSD symptom severity and

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Study 2: frequency of criterion	A events in undergraduate sample

Event	Frequency	Percentage
Accident	44	27.5
Life-threatening illness and/or sudden death	38	23.8
Natural disaster	21	13.1
Non-sexual assault/abuse by someone known	17	10.6
Sexual contact before age 18 by someone 5+ years older	14	8.8
Sexual assault/abuse by someone known	13	8.1
Non-sexual assault/abuse by a stranger	9	5.6
Sexual assault/abuse by a stranger	3	1.9
Combat exposure	1	0.6

Table 2
Study 2: intercorrelations between experiential avoidance, trauma exposure and symptom severity in undergraduate sample

Factor	I	2	3	4
1. AAQ 2. PDS (trauma severity)		0.07	0.37** 0.23*	0.55 ** 0.08
PDS (PTSD severity) BSI global severity index				0.47**

Note. AAQ = Acceptance and Action Questionnaire; PDS = Post-traumatic Diagnostic Scale; BSI = Brief Symptom Inventory.

Table 3
Study 2: summary of hierarchical regression analysis for trauma severity and experiential avoidance predicting symptoms in undergraduate sample

Step Variable	R^2 change	Beta final step	% unique variance
DV=PDS (PTSD severity)			
1. PDS (trauma severity)	0.05*	0.20*	4%
2. AAQ	0.13**	0.37**	13%
DV=BSI Global Severity Index			
1. PDS (trauma severity)	0.01	0.02	0.04%
2. AAQ	0.30**	0.56**	31%

Note. PDS = Post-traumatic Diagnostic Scale; AAQ = Acceptance and Action Questionnaire; BSI = Brief Symptom Inventory.

general psychopathology as measured by the global severity index (GSI) of the BSI. As expected trauma severity was correlated with PTSD severity, but not with score on the GSI.

The results of the hierarchical regression analyses (presented in Table 3) confirm that AAQ scores predicted total PTSD symptom severity over and above trauma severity (R^2 change = 0.13, F change (1, 145) = 24.22, p < 0.001) accounting for 13% of the unique variance in PTSD symptom severity. Further, AAQ scores were found to account for 31% of the variance in general psychological distress.

4. Study 3

Our final study was a replication of Study 2 in a clinical, treatment-seeking sample. Specifically, we tested the hypothesis that experiential avoidance would predict PTSD severity over and above combat exposure among a sample of veterans presenting for inpatient PTSD treatment. We also examined the relationship between trauma severity, experiential avoidance and depression in this sample given the high level of comorbidity among PTSD and major depressive disorder in this population (Orsillo, Weathers, Litz, Steinberg, & Keane, 1996).

^{*}p<0.01, **p<0.001.

^{*}p < 0.01; **p < 0.001.

4.1. Method

4.1.1. Participants

Participants were 37 male veterans who were consecutive admissions to an inpatient treatment program for PTSD at the Oklahoma City Department of Veterans Affairs Medical Center. Patients were asked to give their consent to participate in a research program directed at evaluating the effectiveness of the treatment. All patients consented and they were administered a diagnostic interview (described below) and a questionnaire packet including the AAQ as part of this larger study.

4.1.2. Measures

The Clinician-Administered PTSD Scale (CAPS; Blake et al., 1990) was administered by Ph.D. level clinical psychologists and advanced graduate students. This widely used and empirically validated measure explores respondents' trauma history and symptom severity (as measured by frequency and intensity) along all four of the symptom clusters in the DSM criteria for PTSD diagnosis. The CAPS demonstrates good internal consistency (α =0.94; Blake et al., 1995), and convergent validity with self-report measures of PTSD (r's range from 0.70 to 0.84; Blake et al., 1990) and combat exposure (r=0.91; Blake et al., 1995).

4.1.2.1. Self-report measures. In addition to completing the AAQ, participants completed the Combat Exposure Scale (CES; Lund, Foy, Sipprelle, & Strachnan, 1984) and the Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961). The CES is a seven-item self-report measure designed to assess the degree of combat experienced along a range of light to heavy exposure. The CES has demonstrated good internal consistency ($\alpha = 0.85$) and one week test-retest reliability (r = 0.97) has been established (Keane et al., 1989). The BDI is a widely used 21-item self-report measure that assesses changes in behaviors, attitudes, and emotions indicative of depression symptoms, and has demonstrated good internal consistency ($\alpha = 0.86$; Beck & Steer, 1984).

4.2. Results

Intercorrelations between the variables of interest (see Table 4) confirm that experiential avoidance was associated with both PTSD symptom severity and depression. Similar to the results in the undergraduate sample, trauma severity was correlated with PTSD severity, but not with depression. The results of the hierarchical regression analyses (presented in Table 5) indicate that AAQ scores predicted total PTSD symptom severity over and above CES scores (R^2 change = 0.13, F change (1, 36) = 6.21, p < 0.02) with AAQ once again accounting for 13% of the unique variance in PTSD symptom severity. Further, AAQ scores were accounted for 28% of the variance in BDI scores.

Table 4
Study 3: intercorrelations between combat exposure, experiential avoidance and symptoms of PTSD and depression in clinical sample

Factor	1	2	3	4
I. AAQ		-0.1 I	0.32*	0.50**
2. CES			0.36	0.17
3. CAPS				0.17 0.63**
4. BDI				

Note. AAQ = Acceptance and Action Questionnaire; CES = Combat Exposure Scale; CAPS = Clinician Administered PTSD Scale; BDI = Beck Depression Inventory.

*p<0.05, **p<0.01.

Table 5
Study 3: summary of hierarchical regression analysis for combat exposure and experiential avoidance predicting symptoms in clinical sample

Step Variable	R ² change	Beta final step	% unique variance
DV=CAPS			
1. CES	0.13*	0.40**	16%
2. AAQ	0.13*	0.36*	13%
DV=BDI			
1. CES	0.03	0.23	5%
2. AAQ	0.28**	0.53**	28%

Note. CAPS = Clinician Administered PTSD Scale; CES = Combat Exposure Scale; AAQ = Acceptance and Action Questionnaire; BDI = Beck Depression Inventory. $^*p < 0.05$; $^{**}p < 0.01$.

5. Discussion

These three studies investigated the hypothesis that experiential avoidance is a predictor of post-event psychological functioning. Results indicated that individuals who use experiential avoidance as a coping mechanism following exposure to stressful and traumatic life events are more likely to display impaired psychological functioning. This finding strengthens previous research indicating that experiential avoidance plays an important role in the development of psychological distress following stressful life experiences.

Further, experiential avoidance was a stronger predictor of psychological distress than previous distress symptomatology and the severity of the traumatic event. Specifically, Study 1 results indicated that previous psychological distress (GSI scores) predicted psychological distress following the experience of an "extremely negative" stressful life event, but experiential avoidance (AAQ scores) predicted psychological distress following a negative life event over and above GSI scores. Studies 2 and 3 indicated that experiential avoidance predicted PTSD symptoms over and above trauma severity and combat exposure such that AAQ scores accounted for 13% of the unique variance of PTSD symptoms and 31% and 28%,

respectively, of the variance on measures of general distress and depression. While experiential avoidance did not account for high proportions of the unique variance of post-traumatic symptomatology in both Studies 2 and 3, experiential avoidance did account for a significant portion of the variance of other measures of psychological distress. Perhaps this is an indicator that experiential avoidance is a better predictor of general psychological distress and less strongly a predictor of trauma-related symptoms, at least in the populations examined in these studies.

These findings are consistent with literature postulating that it is not just the experience of stressful events that is responsible for later psychological distress, but the attempt to avoid cognitions and emotions related to the negative life events (Batten et al., 2001; Gilboa-Schechtman & Foa, 2001; Marx & Sloan, 2002; Shipherd & Beck, 1999). Additionally, some studies have reported that trauma severity is not a significant predictor of post-traumatic symptomatology (Feinstein & Dolan, 1991; Shalev, Peri, Canetti, & Schreiber, 1996).

To date, the relationship between experiential avoidance and psychological functioning has only been directly examined in samples of CSA survivors (Batten, et al., 2001; Marx & Sloan, 2002; Polusny et al., 2004). Results from the present studies link these finding to broader populations including undergraduates experiencing a wide range of stressful and traumatic events and a treatment-seeking clinical sample.

While the results of this research add to a growing literature linking experiential avoidance and difficulties in psychological functioning, it is important to view these findings in the larger context of the emotion literature. Bonanno and his colleagues (e.g., Bonanno & Keltner, 1997; Bonanno et al., 2003; Consedine et al., 2002) have critically reviewed the literature, conducted experimental research on the relationship between emotional inhibition and distress, and concluded that inhibition of emotion may not be inherently unhealthy. Differences between the two literatures on how emotional inhibition is defined, which samples are used, and how psychological distress is measured may partially account for the differences in findings. However, more research on the relationships between openness to versus avoidance of emotional experience and emotional expressivity/disclosure versus inhibition is needed to more fully capture how response to emotional experience may impact psychosocial functioning and quality of life.

While the present studies provide further support for and broaden previous research, there are some limitations to these studies. First, two of the three studies were cross-sectional designs that can only demonstrate correlational relationships between experiential avoidance and distress. Also, other constructs not measured in the current study may account for both experiential avoidance and post-traumatic symptoms. Future research examining more complex models is needed to further elucidate the relationship between experiential avoidance and distress among individuals exposed to potentially traumatic events. The current study is also limited by its reliance on self-report measures of experiential avoidance. Experimental research may be valuable in developing multidimensional measures of experiential avoidance. Finally, study one examined self-reported psychological distress as measured by the BSI before and after the experience of a "stressful life

event." While only those participants who endorsed an event they considered to be "extremely negative" were included in analysis, these results are not as compelling as the results in Studies 2 and 3, which utilized data from measures of combat exposure and other, generally more severe, traumatic experiences.

Overall, the findings presented in these studies are important because they indicate that experiential avoidance is a predictor of post-event psychological functioning across populations of individuals with a broader range of life experiences than has been previously reported. Further research is needed to continue to elucidate the relationship between experiential avoidance and post-event functioning, but acceptance of private experiences might be an important factor in the prevention and treatment of psychological distress.

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